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PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 7694X/VB	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/US 00/ 21570	International filing date (day/month/year) 08/08/2000	(Earliest) Priority Date (day/month/year) 10/08/1999
Applicant THE PROCTER & GAMBLE COMPANY		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the title,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

DETERGENT COMPOSITIONS COMPRISING HYDROTROPES

5. With regard to the abstract,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/21570

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C11D3/20 C11D17/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C11D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	✓ WO 98 53035 A (PROCTER & GAMBLE) 26 November 1998 (1998-11-26)	1,3-5
A	✓ page 14, paragraph 2 claim 1; examples 1,2	2,6-8
A	✓ WO 96 33800 A (WITCO CORP) 31 October 1996 (1996-10-31) page 10, line 5 -page 12, line 17 claims 1-3	1-4,6
A	✓ US 4 873 012 A (BROZE GUY ET AL) 10 October 1989 (1989-10-10) column 4, line 34 -column 5, line 4 column 7, line 15-24 claims 1,15; example 1	1-8,10, 13,14
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

9 November 2000

Date of mailing of the international search report

16/11/2000

Name and mailing address of the ISA

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Bertran Nadal, J

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 00/21570

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A ✓	WO 97 00938 A (PROCTER & GAMBLE) 9 January 1997 (1997-01-09) page 7, paragraph 2 page 8, paragraph 3 example -----	1-8, 10, 13

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

US 00/21570

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9853035	A	26-11-1998	AU 7578198 A	11-12-1998
WO 9633800	A	31-10-1996	US 5674832 A	07-10-1997
			US 5686023 A	11-11-1997
			AU 5671996 A	18-11-1996
			CA 2218725 A	31-10-1996
			EP 0822859 A	11-02-1998
			JP 11505555 T	21-05-1999
			US 5753079 A	19-05-1998
			US 5958863 A	28-09-1999
			US 5977189 A	02-11-1999
US 4873012	A	10-10-1989	AU 602362 B	11-10-1990
			AU 8006687 A	05-05-1988
			BE 1002980 A	15-10-1991
			CA 1307434 A	15-09-1992
			CH 674850 A	31-07-1990
			DE 3736034 A	05-05-1988
			DK 567487 A	30-04-1988
			FR 2606024 A	06-05-1988
			GB 2196981 A,B	11-05-1988
			IL 84265 A	30-06-1991
			IT 1214425 B	18-01-1990
			JP 63150391 A	23-06-1988
			LU 87028 A	03-05-1988
			NL 8702574 A	16-05-1988
			SE 8704145 A	30-04-1988
			ZA 8707985 A	28-06-1989
WO 9700938	A	09-01-1997	BR 9608998 A	29-06-1999
			CA 2225562 A	09-01-1997
			CN 1192777 A	09-09-1998
			CZ 9704036 A	17-06-1998
			DE 19623623 A	02-01-1997
			EP 0842256 A	20-05-1998
			FR 2735786 A	27-12-1996
			GB 2302548 A,B	22-01-1997
			HU 9802501 A	29-03-1999
			JP 11508300 T	21-07-1999
			NL 1003384 C	25-02-1997
			NL 1003384 A	23-12-1996

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 7694X/VB	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US00/21570	International filing date (day/month/year) 08/08/2000	Priority date (day/month/year) 10/08/1999
International Patent Classification (IPC) or national classification and IPC C11D3/20		
Applicant THE PROCTER & GAMBLE COMPANY		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 6 sheets, including this cover sheet.

- ☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 16/10/2000	Date of completion of this report 07.09.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Irwin, L Telephone No. +49 89 2399 2527 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/21570

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1-64 as originally filed

Claims, No.:

1-17 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/US00/21570

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	15 - 17
	No:	Claims	1 - 14
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1 - 17
Industrial applicability (IA)	Yes:	Claims	1 - 17
	No:	Claims	

2. Citations and explanations see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/US00/21570

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

The following documents cited are:

- D1: WO 98 53035 A (PROCTER & GAMBLE) 26 November 1998 (1998-11-26)
- D2: WO 96 33800 A (WITCO CORP) 31 October 1996 (1996-10-31)
- D3: US 4 873 012 A (BROZE GUY ET AL) 10 October 1989 (1989-10-10)
- D4: WO 97 00938 A (PROCTER & GAMBLE) 9 January 1997 (1997-01-09)

Novelty:

1. The subject matter of the claims 1 - 5 is not novel since this combination of features has been previously disclosed in D1 (description, page 14, 2nd paragraph). In D1, although the 1,4-cyclohexanedimethanol is intended for use solely as a solvent and not specifically as a hydrotrope, the composition described in claim 1 is none the less the same, and it is probable that the presence of the 1,4-cyclohexanedimethanol exerts the same effects. These compounds are also covered within the scope of document D2 (description, pages 6 - 7, and 10), especially if x and y are equal to 0. These compounds are present in a laundry detergent composition although, as above for D1, they are not called hydrotropes, but would clearly exert the same effects. In D3, the use of hexylene glycol is disclosed which is used to improve the viscosity and dispersability with water (description, column 4, lines 34 - 48); and in D4, a detergent composition comprising hexylene glycol is also disclosed (description, page 7, 2nd paragraph).
2. The subject matter of the dependent claim 6 is not novel since these additives have also been disclosed in the above compositions of the prior art: (D1, description, page 1, paragraph 3; D2, description, page 10, lines 19 - 23, and page 17, lines 23 and subsequent paragraphs). In D3, (description, column 5, lines 5 - 8, and claim 8, the use of enzymes is also

suggested.

3. The subject matter of the dependent claim 7 is also not novel since the examples disclosed in D3 and D4 fall within the scope of the claimed composition of the present application (see D3, description, column 17, lines 9 - 28; and D4, example, page 21).
4. The subject matter of the dependent claim 8 is not novel as fabric care agents such as fabric conditioners and enzymes have been disclosed throughout the prior art. Additionally, amine oxides have also been disclosed in D1 (description, page 28: Amine oxides).
5. The subject matter of the claims 9 - 12 is not novel. The size of the microns (claim 10) is identical to those disclosed in D4 (description, page 8). The density and the size of the microspheres, and the density of the surfactant phase (claims 9, 12 and 13) is not novel despite the fact that these values have not been specifically disclosed in the prior art, the compositions must still be within these parameters since they comprise the same ingredients.
6. The subject matter of the method claims 13 and 14 is not novel since methods for the use of the laundry washing compositions falling within the scope of the previous claims has been previously disclosed in D3 (claims 15, 16, and 17).
7. The subject matter of the claims 15, 16 and 17 which refer to the present composition in the form of tablets and granules is novel since these forms have not been disclosed in the above cited prior art.

Inventive Step:

8. The advantages of using tablet and granular laundry compositions are well known in the art, and it presently appears obvious for a skilled worker, wishing to incorporate the above known liquid composition into another

form if he so desired.

Re Item VII

Certain defects in the international application

1. The phrase "... herein incorporated by reference" as used for throughout the description, is an expression not to be used since it renders the extent of the protection unclear (Guidelines, PCT/GL/3 III, 4.3a).

Re Item VIII

Certain observations on the international application

1. The subject matter of claim 2 is too broad. It describes a liquid laundry detergent composition (that can be aqueous or non-aqueous - which covers every possibility), which is then further described by a result to be achieved. This is followed by a few disclaimers (absence of hydrotrope, and quaternary compounds which are derivatives of certain compounds), which in total leaves the claim with little substance. Please see Article 6 PCT, and PCT/GL/3 III, 4.7a for details on describing products by their parameters alone.
2. The use of the term fabric care agent in claim 8 is not clear as it stands as this care agent could be an enzyme, surfactant, fabric conditioner, dye transfer inhibitor etc. Although support for this claim is found in the description on page 39 onwards, the present claim 8 does not stand alone well since the definition of fabric care agent is too broad in scope and itself is not clear.